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"Half-dead Drunk and A Bad Virus": A Case of Methanol Poisoning With Covid-19 Infection

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INTRODUCTION

Covid-19 virus infection can be deadly and to have a methanol poisoning on top of this can be doubly deadly. We present a case of methanol toxicity in a patient who also had the virus infection.

CASE DESCRIPTON

A 42-year-old Burmese gentleman was brought to the department by the prehospital team after being found to be less responsive after drinking 'whiskey' with friends the night before. He had second dose of vaccine just a day before. On arrival, his GCS was E1V1M1, BP 119/76 mmHg, PR 80 beats/min, RR 20 breaths/min and SpO2 100% under high flow mask. He had one episode of generalized tonic-clonic fitting more over the left side, lasting for 15 secs before aborting spontaneously. He was intubated for airway protection. He had severe metabolic acidosis with pH <6.8 and the HCO3 was incalculable. He was treated for alcohol poisoning and covered for aspiration pneumonia. There was a slight Acute Kidney Injury with urea 2.4 mmol/L, creatinine 172 micromol/L and K 5.4 mmol/L. Liver function was normal. He was given IV Ethanol, IV Folinic acid, NaHCO3 and subsequently dialysed. Chest x-ray (Fig 1) showed bilateral opacities more over the right side. CT Brain plain showed no intracranial bleeding. While awaiting ward admission, tracheal aspirate PCR came back as positive. Patient was started on IV Dexamethasone 8mg stat and once daily along with subcutaneous Heparin 5000 units twice daily. He was then admitted to Covid ICU. Serum methanol was detected with a level of 91.3 mg/dL. The pH normalized post dialysis.

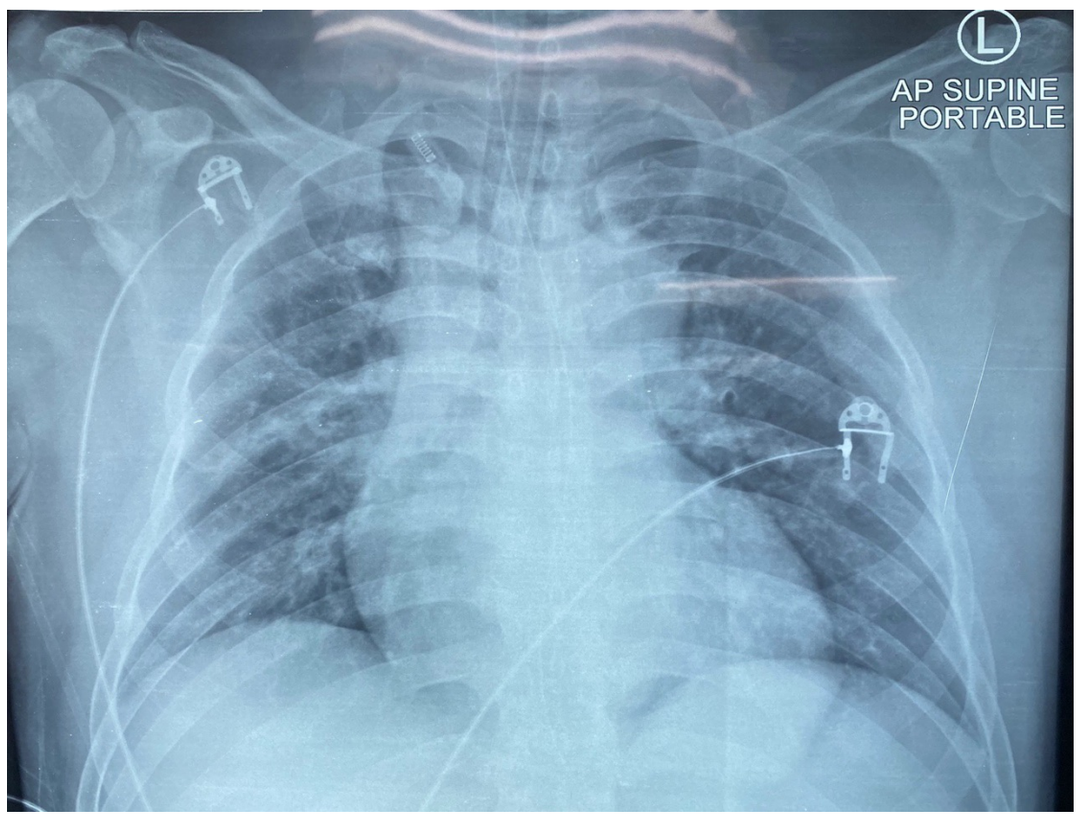

Fig 1. chest x-ray of the patient post-intubation

DISCUSSION

Methanol poisoning is a relatively rare form of alcohol poisoning usually resulting from ingestion of common household chemicals that can be intentional or accidental, or consumption of improperly distilled alcoholic beverages. Methanol itself has minor toxic effects often causing only mild GI irritation. However, once it is metabolized in the liver to formic acid, this substance can cause a myriad of disturbances to the body, mainly High Anion Gap metabolic acidosis and a spectrum of neurologic sequalae ranging from visual changes to altered consciousness, which can ultimately lead to permanent visual loss and death. A serum methanol level of >20mg/dL is considered toxic.

As Covid-19 continues to become a public health emergency, it is wise to have a high index of suspicion for Covid-19 infection even in the absence of respiratory symptoms. In this case, we were unable to elicit any prior history of fever or cough as the patient had altered consciousness at presentation. Bilateral opacities on chest radiograph is highly suggestive of Covid-19 infection. Furthermore, the patient had only completed his 2nd dose of vaccination one day prior. Studies show that higher vaccine efficacy is seen at least 14 days after its administration.

As the virus is highly contagious, prompt detection of the infection is essential in order to appropriately isolate the patient. Early detection and isolation can not only prevent a nosocomial outbreak, but early institution of intervention such as corticosteroids has also shown to improve outcome in critically ill Covid-19 patients.

CONCLUSION

During the pandemic, deadly events such as toxic alcohol ingestion can happen on top of being infected by Covid-19. High index of suspicion is necessary as shown in this case. Treatment needs to be started early based on clinical assessment and precautions taken for protection as well test for Covid-19.

The authors declare that there are no conflicts of interest

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